

**Water Quality Division Workplan
FY 2007 Report Card
Period: 7/01/06 thru 6/30/07**

DIRECTOR'S OFFICE - Data Management and Assessment Group – Good Year

During FY07, several projects were completed or initiated to continue to move the division forward in managing and processing information and water data. Major improvements were made to our drinking water system (SDWIS-State) to create new management reports and to automate generation of letters for mailing to water systems, flagging missed reporting and MCL exceedances. Migration of data to the new web-based version of SDWIS-State (SSWr1) was completed. We plan to migrate to SSWr2 and deploy the extended database features (e.g., Drinking Water Watch, e-reporting) during FY08.

Efforts focused again on expanding electronic government capabilities. Work was completed on the agency web portal to allow AZPDES permitted facilities to report DMR data using xml formats. We plan on expanding this service and offering other permit holders an opportunity to automate DMR data submissions during FY08 and FY09. Also, major enhancements were completed for the Smart NOI system including addition of electronic signatures and e-forms to simplify and further expedite data entry for customers. Another online permit was developed and deployed to automate notification requirements and fee payments for property transfers involving onsite wastewater systems. We expect more than 10,000 notifications annually.

Database updates were completed on the Wastewater & Compliance Tracking (WCET) system to fully automate required uploads to PCS. We are now preparing to work on interfacing with PCS modernization (ICIS) requirements during FY08/FY09. The Surface Water, Groundwater and Permitting Databases were enhanced to better support water quality assessments, reporting and automated data loading processes. Water quality monitoring data uploads to STORET continued and will be completed by September 2007.

Technical support continued for GIS, GPS and other analytical tools, and field surveys to assist staff in environmental monitoring and assessments, compliance and permitting work, managing and protecting drinking water supplies, and responding to emergencies such as wildfires. Custom GIS analyses and mapping are routinely performed for programs, and the AZMapper (enterprise desktop GIS) application continued to expand with better functionality, providing staff easy access to key geospatial data. AZMapper will be converted into a more robust web-based application in FY08 and FY09.

GROUND WATER SECTION

Aquifer Protection, Reclaimed Water & Drywell Activities: Good Year

The Groundwater Section did an incredible level of work despite decreases in staff resources and reorganization. By the end of FY07, GWS staff issued: 32 individual APPs, 21 significant APP amendments, 11 clean closures, 33 Type 2 general permits, and 3 Type 3 general permits. Twelve APP applications were withdrawn and 3 were referred to Water Quality Compliance Section for further action. GWS issued 56 permits for reuse of reclaimed water; 1 application was withdrawn. Additionally, 3,306 drywells were registered. GWS issued 253 construction authorizations and 127 discharge authorizations of Type 4 general APPs for sewage collection systems and on-site wastewater treatment systems as well as 2546 subdivision approvals.

The legislative deadline for issuing APPs to existing mining facilities was January 1, 2007. GWS issued 4 permitting decisions to existing mining facilities.

Activities related to the lawsuit filed against ADEQ for subdivision approval procedures continued. Staff responded to a time-consuming request to produce all e-mails related to the case. Efforts continue to prepare for litigation.

Program Development Activities: - Good Year

During this fiscal year, GWS issued a draft revision of AWQS rule for informal stakeholder comment.

The on-site treatment system transfer program rolled out a web-based filing system. Outreach continues.

GWS continued work on review of current fees and development of information needed to revise the fee rule.

COMPLIANCE SECTION

Safe Drinking Water Monitoring Program: - Very Good Year

In Fiscal Year 2007 (FY 07), ADEQ laid the ground work to improve its overall performance in insuring safe drinking water for the residents of Arizona. The highlight of the year was a training held in June 2007 for all field inspectors with instruction on reviewing public water

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system (PWS) data on SDWS/Drinking Water Watch. This was a fundamental shift in the review of the analytical data, which was previously conducted by a small group of enforcement officers for over 1,500 PWSs. With training and SDWS access for field inspectors, more than 12 field inspectors statewide review the analytical data for PWSs, providing a greater likelihood of personal interaction and immediate response to specific analytical and operation and maintenance issues. The training created a better framework for interaction among the compliance specialists in the Drinking Water Section and the field inspectors and enforcement officers in the Compliance Section. The sections are working together to insure that the relevant field inspector is notified when a PWS fails to submit analytical data or appears on the SNC list. ADEQ intends to make the Field Services Training an annual event.

The inspection statistics for drinking water were improved during FY 07. Thirty-eight out of forty-one surface water systems were inspected (the Workplan had an incorrect target number of 50), and ADEQ exceeded the target for inspections of groundwater systems. The process of compiling the inspection numbers revealed some inconsistencies between the classifications of PWSs in SDWS and the knowledge of the field inspectors. This is an issue ADEQ will further review during FY 08. ADEQ also met and exceeded its “straw target” for addressing and removing systems from the SNC list.

During FY 07, the Compliance Section achieved great results using its informal enforcement tools in the Notice of Violation (NOV) and Notice of Opportunity to Correct Deficiencies (NOC). ADEQ issued 42 NOCs and 44 NOVs based on SDWA violations in FY 07, and 40 of those returned to compliance within the fiscal year. Twenty-one of the NOVs included monitoring and reporting violations. An additional 39 NOCs and NOVs issued in previous fiscal years were closed. ADEQ issued 5 Administrative Orders during FY 07 and an additional 8 Administrative Orders are in process at the end of FY 07. Finally, ADEQ is preparing escalated enforcement (i.e. filing suit in Superior Court) for 3 PWSs.

Enforcement actions begun in previous fiscal years culminated in FY 07 with the transfer in ownership or control of 7 PWSs. The Arizona Corporation Commission (ACC), which regulates public utilities, including some PWSs, provided significant assistance to ADEQ by appointing interim operators for PWSs experiencing compliance and financial problems. The 7 “McLean” PWSs in southern Arizona were purchased by Algonquin Water Services, L.L.C. after the owner, Mr. McLean declared bankruptcy. In addition, Arizona Water Company was appointed interim operator for Golden Corridor, a PWS with a poor compliance history. The ACC subsequently revoked the Certificate of Convenience and Necessity for Golden Corridor and Arizona Water Company is actively pursuing the purchase of the PWS. In the meantime, the residents served by the PWS are receiving an improved quality of drinking water. ADEQ and the ACC are continuing their joint efforts to improve drinking water quality and service for residents throughout Arizona.

Clean Water Act (NPDES): - Very Good Year

Wastewater Treatment and Stormwater - In Fiscal Year 2007, ADEQ improved the effectiveness of its Field Services units, both in the number of inspections and the review of analytical data from wastewater treatment facilities (WTF) permitted by AZPDES and Arizona's Aquifer Protection Program (APP). In June 2007 ADEQ conducted training for all field inspectors with instruction on reviewing analytical data provided by the WTFs in Discharge Monitoring Reports (DMRs) and Self-Monitoring Report Forms (SMRFs). This was a fundamental shift in the review of the analytical data, which was previously conducted by a small group of enforcement officers. With training and database access for field inspectors, more than 12 field inspectors statewide review analytical data for WTFs, providing a greater likelihood of personal interaction and immediate response to specific analytical and operation and maintenance issues. ADEQ intends to make the Field Services Training an annual event.

The Data Management Unit remained current with its entry of DMR data for regular upload to EPA's PCS database. ADEQ is reviewing the possibility of uploading additional information to PCS regarding other AZPDES inspections, especially those related to biosolids and concentrated animal feeding operations (CAFOs). ADEQ already has a "reminder letter" to notify owners of WTFs when they fail to submit DMRs, and is developing a similar letter to address missing SMRF data. ADEQ is also reviewing the Quarterly Non-Compliance Report (QNCR) and passing the information to field services inspectors who can address the specific WTF deficiencies.

ADEQ improved its inspection numbers during FY 07. All but one major AZPDES facility was inspected and that facility was upgraded from minor status in the 3rd Quarter. This represents an increase of 15 additional inspections of major facilities from Fiscal Year 2006. ADEQ also conducted 13 more inspections for WTFs possessing an APP and 29 more reuse inspections than in Fiscal Year 2006. The number of stormwater inspections, especially construction stormwater inspections, was dramatically higher in FY 07 than in the previous year. ADEQ conducted 138 construction stormwater inspections and 65 industrial stormwater inspections during FY 07. ADEQ hired a new manager for the Field Services Unit in the Phoenix office in September 2006, which accounts for some of the better inspection numbers.

ADEQ issued 77 NOCs and 54 NOVs for violations of the Clean Water Act and Arizona's APP statute. This includes violations for stormwater, biosolids and CAFO. ADEQ's informal enforcement tools are effective in addressing these violations; 63 of the NOCs and NOVs issued during FY 07 returned to compliance within the fiscal year. ADEQ closed an additional 56 NOVs and NOCs issued in previous fiscal years. ADEQ issued an administrative order for APP violations and an administrative order for AZPDES CAFO and APP violations to a former dairy

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which operated near the Gila River. Another stormwater facility entered ADEQ's Voluntary Remediation Program to address contamination in an irrigation canal that is a tributary to the Aqua Fria River. At the end of FY 07, ADEQ was negotiating 8 additional administrative orders for violations of AZPDES and APP. Finally, ADEQ is preparing 5 cases for escalated enforcement (lawsuits) and the *La Osa* and *Fiesta Canning* cases continue to utilize enforcement resources.

In September 2006, ADEQ hired a Compliance Assurance Unit Manager. The Compliance Assurance Unit encompasses the Biosolids, CAFO, Pesticide and Pretreatment Programs. ADEQ assigned one of its existing field inspectors the duties of the Pretreatment Coordinator, but the field inspector subsequently left state employment in the 3rd Quarter of FY 07. After the most recent Legislative session, ADEQ acquired funding for a dedicated Pretreatment Coordinator position, which is currently being advertised.

Biosolids Program – In late November, 2006, ADEQ hired a Biosolids Coordinator, after a vacancy of 18 months. In slightly more than 2 quarters, the Biosolids Coordinator conducted 18 of the 24 targeted inspections for FY 07. ADEQ also reviewed 136 Annual Biosolids Reports, which represents 84% of the WTFs required to submit annual reports, an improvement over the 54% of facilities that submitted an annual report during Fiscal Year 2006. The Biosolids Program issued 3 NOVs, including one to a major AZPDES WTF. ADEQ opened a rule making docket to update its biosolids rule, a project which will extend into Fiscal Year 2008. The Biosolids Coordinator is developing an outreach program which will be presented throughout the state during Fiscal Year 2008.

CAFO Program – In late November 2006, ADEQ hired a CAFO Coordinator, after a vacancy of more than 2 years. The CAFO Coordinator conducted 16 inspections, resulting in several NOVs and a Consent Order. Another Consent Order was awaiting signature at the end of FY 07. The CAFO Coordinator is preparing a letter for outreach to reintroduce CAFOs to the applicable regulations under AZPDES, APP and the Safe Drinking Water Act. ADEQ is also drafting CAFO closure guidance. ADEQ established regular meetings with the Arizona Department of Agriculture and NRCS. During FY 07 ADEQ issued coverage under its AZPDES CAFO General Permit for a proposed swine CAFO in Yuma County. ADEQ subsequently requested the applicant obtain an individual AZPDES permit, which it anticipates writing during Fiscal Year 2008.

Pesticide Program – ADEQ registered 10 pesticide active ingredients during FY 07 and conducted increased sampling of monitoring wells. For the first time, ADEQ prepared and published the draft and final Notice of the Groundwater Protection List (GWPL) in the *Arizona Administrative Register* for annual adoption in accordance with the new rules. The update involved revision of the GWPL (removal of some and addition of other active ingredients). ADEQ maintained and sampled 24 monitoring wells owned by the Arizona Department of Agriculture, and ADEQ in the 2nd Quarter of FY 07, and obtained baseline data for monitoring newly-emerging pesticides, subsequently verifying the results by re-sampling 12 wells within 30 days. This was the first time in 10 years that so many samples were collected in one sweep, and pesticide detections verified for potential compliance actions in accordance with Arizona statute. ADEQ also collected 14 groundwater samples in the 4th Quarter of FY 07 to evaluate relationships between growing seasons and pesticide detections. ADEQ personnel gave a presentation at the annual conference of the Western Plant Health Association meeting in the 3rd Quarter of FY 07 on the Pesticide Program to explain the revision of the GWPL and Arizona Pesticide Statute.

DRINKING WATER SECTION

Ongoing Program Implementation: - Good Year

The Drinking Water Section (DWS) oversees and implements a variety of continuing and changing programs to fulfill the requirements of the Safe Drinking Water Act (SDWA). These duties include, but are not limited to: the day-to-day application of regulations; providing customer service to the regulated community and the public; certified operator training opportunities; conducting continuing education in the form of water and wastewater workshops; coordination with WIFA for the production of the Revolving Loan Fund annual reports; producing work plans and grant applications to secure program funding; coordination with EPA Region 9 on rules, delegation and securing adequate statutory authority to implement the Drinking Water program; and various other activities necessary to support the Section's SDWA related programs. Although the program faces recruitment challenges as state salary ranges are below most industry, county and municipal levels, many vacant positions were filled during the fiscal year enabling the program to move in the direction of the work plan.

Meeting Federal Requirements: - Good Year

ADEQ underwent the 2007 Arizona Data Verification Audit and Program Implementation Audit (DV) in February. The May 8, 2007, Draft Report outlined findings of the DV which compared inventory, analytical data and violation updates for a randomly selected group of public water

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systems (PWS). The audit team evaluated the information contained in the PWS facility files and ADEQ's drinking water database (Safe Drinking Water Information System – SDWIS/State) against the federal Safe Drinking Water Information System (SDWIS/Fed), to identify any potential discrepancies and to ensure that ADEQ is determining compliance in accordance with federal and state drinking water rules.

Overall, the DV findings showed the Arizona Safe Drinking Water Program to be well maintained and rules properly interpreted and implemented. The majority of findings and recommendations generally related to data manipulation, handling, and analysis. Based upon issues identified in the 2004 DV, ADEQ is convinced the migration to SDWIS/State beginning in the 2004–2005 timeframe addressed most, if not all, of the data issues outlined in the previous DV. Note that the 2007 DV did cover some historic monitoring periods where compliance and violations were determined and tracked under ADEQ's legacy database (e.g., Phase II/V rules 2002-2004, sanitary surveys, etc.). As such, some carry over of issues that existed under the legacy system were identified as potential problems in the current SDWIS/State environment. In spite of this, data discrepancies have dramatically decreased since the 2004 DV and ADEQ fully expects to continue to make progress in these areas as utilization of the SDWIS/State environment increases.

The audit team provided valuable insight into the problems and successes of other primacy programs and the ADEQ drinking water program will move in a direction to duplicate successful processes that fit Arizona's regulatory profile. ADEQ will take steps to update our overall SOC waiver process and will implement practices to ensure that a review of new SOC data and land use information occurs at least once every three years (i.e., once every compliance period). The Sanitary Survey findings and recommendations noted a marked improvement in inspection frequencies since the 2004 DV. ADEQ attributes this advancement in the number of PWSs that receive an inspection at least once every five years, in part, to the improved sanitary survey tracking ability of SDWIS/State. ADEQ fully expects to maintain this positive direction and a goal of zero PWSs identified without a sanitary survey having been conducted at least once every five years has been set for the next DV. ADEQ will improve upon PWS notification events relating to increased monitoring (e.g., quarterly triggered nitrate), public notification (e.g., MCLs) and consumer confidence reports deficient in content and/or delivery verification. ADEQ is confident the migration to SDWIS/State will effectively address these points and will rectify most, if not all, of the identified discrepancies and ensure accuracy between SDWIS/State and SDWIS/Fed by enabling exact and complete linkages between systems, samples, violations, and enforcement actions.

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Compliance Assistance (CA) has been the focus of the Drinking Water Rule Specialist staff. It is estimated that staff respond to approximately 10,000 CA actions per year, which includes phone calls, e-mails, referrals, meetings, outreach, and almost every detail of the five drinking water rule specialists' work, which cannot be truly quantified. Staff has also hosted a large number of webcasts designed to provide guidance on rules. In addition to the monthly missed monitoring letters sent to PWS for the Total Coliform Rule, violation notifications were sent out for missed Consumer Confidence Reports submittals, and also for missed monitoring of Maximum Residual Disinfectant Levels and for Nitrates. These letters will now be mailed to systems for each missed monitoring period. PWSs were also notified by letter if they qualified for grandfathering of data under the Radionuclides rule or if the PWS needed to perform initial monitoring. Staff has initialized quantification of the lead and copper rule and missed monitoring letters will be sent in the next fiscal year.

Rules & Primacy - The top rulemaking priority for the DWS remains the incorporation by reference of the federal drinking water rules. A few months ago, the Department released a draft of the incorporation by reference rule for preliminary review and comment, and scheduled numerous meetings throughout the state to discuss the rules with stakeholders. To date, meetings have been held in Phoenix, Tucson, Flagstaff, and Safford; additional meetings are scheduled for Lake Havasu City and Yuma. The Department believes that most, if not all, of the areas of concern raised by stakeholders will be addressed in the next version of the rule, which it plans on completing within the month. If there is consensus on the issues of concern, the Department will publish the proposed rule, thereby setting up the remaining stages of the rulemaking process, which should take approximately six months to complete. At this point in time, there appears to be consensus to move forward with a version of the rule that will incorporate the 2007 edition of the NPDWRs, which would incorporate the Groundwater and UCMR-2 rules.

The Department is also working on a rule that will establish fees for the drinking water engineering review section. The Department is anxious to get the fee rule in place, and is planning on having the rule adopted within the year.

The Department is still planning on updating the minimum design criteria rules in 18 A.A.C. 5, Article 5; however, the Department believes that it is in the best interests of the public to wait until the design review fee rulemaking is substantially completed prior to proceeding with revisions to the design criteria rules.

Another rulemaking the DWS has been considering in recent years is a revision of the subdivision rules and minimum design criteria rules for public water systems. The Department chose not to move ahead with this rule pending completion of several appurtenant issues; i.e., the completion of a related rulemaking by the Arizona Department of Water Resources, the resolution of the lawsuit challenging EPA's delegation of the NPDES program to Arizona and the resolution of a lawsuit filed against ADEQ regarding the implementation of the subdivision rules.

Ensuring proper construction, operation and maintenance of public water systems – Great Year

The Engineering Review Unit (formerly the Technical Engineering Unit) continues to provide plan reviews and approvals for newly proposed water systems, extensions to existing water systems, and installation of treatment facilities. The entire program processed about 1,212 certificates for Approval to Construct and Certificates of Completion for approval of construction during FY2007, approximately the same as the number issued in FY2006 (1250). The state's new housing market continued its slide in 2007. However, indications from the developer community are that new construction will pick up during FY2007 and FY2008. The persistent high number of reviews being conducted by the Unit continues to strain current staffing resources. The DWS is actively engaged in a rule-making process to establish fees for drinking water engineering reviews, which would allow for the hire of additional staff to the program, thus helping to reduce workloads and time frames for plan reviews. The DWS continues to provide technical consultations with water systems and consultants to assist and ensure water system construction projects will meet ADEQ requirements prior to development.

Assessing and protecting drinking water sources:

Source Water Assessment Program (SWAP) – Good year

The data collected under SWAP continues to be a very useful tool internally for the waiver program, for many customers interested in their source of drinking water, and the SWPAs are also referenced by community water systems in the annual Consumer Confidence Reports. The transition from assessment to protection is a long-term, ongoing process. The SWAPS are being utilized in an effort to evaluate and to track Public Water Systems (PWS) with known contamination (via existing sampling results) as one part of the Source Water Protection Program.

Source Water Protection Program (SWPP) – Good year

Nation-wide, source water protection is currently a voluntary program, and Arizona remains a voluntary SWPP state with no authority to require systems to participate. Staff has been working actively with the ADEQ Tanks Programs Division to evaluate any PWS with known contamination from BTEX (benzene, toluene, ethylbenzene and xylene) petroleum detections. The Tanks Program, Corrective Action Section is reviewing these PWSs to determine if the systems are within a known, suspected or new Leaking Underground Storage Tank (LUST) facility site. Statewide, this is a large undertaking aimed to protect public health by identifying, eliminating or remediating existing contamination sites. The SWPP is also performing similar evaluations for dry cleaning contamination detected through Volatile Organic Compound (VOC) sampling around the state and working with the Waste Programs Division, Site Assessment Unit to identify known sites, or new sites that need to be assessed. All water systems being evaluated

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through this current process will then be reviewed and contacted about the SWPP.

Technical assistance and education: – Great Year

The Drinking Water Section (DWS) reports success of the ongoing Technical Assistance (TA) program which utilizes the Master Priority List developed under the Capacity Development Program to direct assistance to those systems most in need. The evaluations identify areas of system operation and infrastructure where improvements can be made, resulting in improved compliance. The program has been expanded to include additional systems on an annual basis. Under this contract, the department awarded approximately 7 system evaluations for FY07. In addition, follow up assistance to 12 of the PWSs that received system evaluations (SE) in FY06 was conducted. The deliverables for each of these systems included: PWS Site Plan Schematic, Operation and Maintenance manual, Backflow and Cross Connection program review and report, Vulnerability Assessment / Emergency Response Plan, and an Emergency Operations Plan.

The DWS continues to expand the education program offering approximately 40 workshops each fiscal year. The workshops are developed for water system owners and operators covering topics including new technologies and regulatory requirements. The education program is well received, attended and evaluated by stakeholders and the regulated community. Satisfaction Survey scores are routinely at the top of the scale and comments are used, in part, to direct future topics.

Improving water system security: – Great Year

The DWS continues to assist new water systems serving between 3,300 and 10,000 in completing mandatory Vulnerability Assessments (VA's). As each VA is completed, the water systems submit them to EPA. This approach was well received by the water systems. In addition, the Safe Drinking Water Information System (SDWIS) has been modified to track which water systems have completed their VA/ERP. This allows personnel to identify water systems that exceed the population threshold. These systems are then notified by the department of the requirement for vulnerability assessments and emergency response plans and, if possible, receive assistance through a technical assistance provider.

DWS efforts to raise water system awareness and preparedness for acts of terrorism and sabotage continue to be successful. A total of 6 Vulnerability Assessment / Emergency Management Plan workshops were held during FY07. Although actual security breaches at water systems are infrequent, when reported to the state, DWS resources are used to assist systems in assessing impacts.

Program innovations: - Great Year.

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During the first quarter, ADEQ was one of only six states to complete a migration from the SDWIS-State database to the SDWIS-State Web Release (SSWr1). SSWr1 allows ADEQ to facilitate a compliance program with enhancements that include:

- electronic submittal of drinking water data;
- electronic sanitary surveys completed by inspectors;
- public review of live data and inventory from ADEQ's web site; and,
- staff review of data, inventory, and report capacity from Drinking Water Watch

In addition, the user-friendly Drinking Water Watch (DWW) was released internally to the regional offices and delegated counties. External DWW should be released to the public by the end of the year. This final phase will allow the public and the regulated community to view system information on-line. The move to external DWW is highly anticipated.

Certified Operator Program: – Great Year

The DWS continues to assist operators of public water systems serving less than 3,300 with continuing education requirements. A total of 8 workshops were completed under the expense reimbursement grant during FY07. Approximately 6 workshops are scheduled for FY 2008. FY07 also marked the successful completion of the migration over to a new SDWIS compatible certified operator database, Safe Water Operator Certification System (SWOCS). The SWOCS module facilitates the tracking licenses and continuing education credits (CECs), the production of certificates, and drinking water/wastewater system operator association.

SURFACE WATER SECTION

Water Quality Standards Development: - Average Year

ADEQ is behind schedule for initiating the formal rulemaking process to adopt revisions to the water quality standards rules. ADEQ finalized anti-degradation, narrative bottom deposits, narrative nutrient standard, and narrative biocriteria standard implementation procedures documents and completed a technical support document for the narrative biocriteria standard in FY 07. Proposed revisions to the water quality standards rules and accompanying guidance documents were published on the ADEQ Water Quality Standards web page in June 2007. ADEQ scheduled a stakeholder meeting for August 8, 2007, to re-initiate the triennial review process. ADEQ anticipates drafting a Notice of Proposed Rulemaking to initiate formal rulemaking process by the end of September 2007 with the goal of state adoption of revised surface water quality standards by December 2007.

Surface Water Monitoring Program: - Good Year

Staff completed the second, third, and fourth quarter monitoring (streams and lakes) in the Lower Colorado and the Little Colorado basins in accordance with the FY 07 sampling plan by June 30, 2007. The first quarter of sampling was missed due to excessive staff shortages. In July, the unit consisted of a new manager, a groundwater data entry person, and a groundwater sampler. Thus, first quarter activities focused on staffing and training the Monitoring Unit.

Despite the staffing problems, the Monitoring program accomplished quite a bit during FY07, including:

- The final draft of the Comprehensive Monitoring Strategy was submitted to EPA
- Probabilistic monitoring was completed in accordance with the REMAP grant in the Little Colorado River basin
- A significantly updated draft of the Quality Assurance Program Plan for the Surface Water Section was submitted to EPA

The Lakes Program completed sampling for half of the 21 lakes for Arizona's portion of the National Lake Survey (this effort is on-going).

AZPDES (AZ Pollutant Discharge Elimination System) Permits: - Good Year

FY07 was the fourth full year of AZPDES implementation since program approval. The permits program status is as follows:

- During this period, 26 AZPDES individual permits were issued. 7 of these were major facilities; 4 of the 26 issued permits were for new discharges.

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- The Superstition Mountain permit appeal (begun in FY 2005) was adjudicated by a final decision of the Water Quality Appeals Board. However, the permittee appealed to the Arizona Superior Court. The Superior court ruled on the appeal on January 10, 2007. The ruling affirmed the Water Quality Appeals Board decision.
- Thirteen permits are presently backlogged. Of these, 5 are in public notice or have completed public notice.
- Issuance of the individual permits for Phase I MS4s is still behind schedule, however, progress is being made. A preliminary draft permit for the City of Phoenix was completed and ADEQ is receiving comments from the City and is also engaging in routine stakeholder meetings with all the large MS4s to discuss their issues with the draft. This permit is intended to provide a model for the remaining Phase I MS4 permits. The Phoenix permit is expected to be public noticed late 2007 or early 2008.
- ADEQ has also completed a draft of the ADOT stormwater permit. The permit covers multiple discharge activities (Large and small MS4, Construction, and MSGP regulated facilities) The permit was sent to ADOT for preliminary review on 3/16/07, and ADEQ/ADOT have engaged in multiple meetings to resolve issues.
- ADEQ processed 3,448 NOIs for the Construction GP.
- 8 SWPPPs were reviewed for construction activities near unique or impaired waters.

ADEQ issued 298 authorizations to discharge under the De minimus Discharge General AZPDES permit. Three of these authorizations were areawide authorizations.

TMDL Analyses: - Average Year

The **Turkey Creek** Copper and Lead TMDLs were submitted to and approved by USEPA Region IX in October 2006. These were the only TMDLs approved by Region IX in FY07. Six other TMDLs are near completion, including the **Alamo Lake and Lake Mary Regional** mercury TMDLs. These mercury TMDLs have been delayed due to two main issues; adoption of the Implementation Procedures for the Fish Consumption Advisory Program and determining the watershed natural background mercury concentrations. Additional soil sampling is planned on both projects so that the draft TMDLs can be released for public comment and submitted for approval once the implementation procedures have been adopted.

For **Pinto Creek**, a site specific standard (SSS) for dissolved copper at 42µg/L is being proposed and is hardness independent. The SSS is included in the Triennial Review of Water Quality Standards rules package and final submittal of the TMDL can not occur until the rules are adopted.

Sampling to determine the **Mule Gulch** SSS has been delayed due to low rainfall amounts over the past year; however, automated equipment has been deployed throughout the watershed in anticipation of the summer monsoon season. Additional automated equipment has also been deployed along **Queen Creek** to fill data gaps needed for hydrologic modeling efforts to move forward.

Significant progress has been made on the upper **Gila River** and **Parker Canyon Lake** TMDL projects. Sampling summer storm runoff will complete the Parker Canyon Lake data needs with sampling along the upper Gila continuing through the fall. New studies include Watson, Lyman, and Crescent lakes, East Verde River, and the lower San Pedro River. As vacancies are filled, projects to reinstate include the Little Colorado and Santa Cruz River TMDL projects

The TMDL unit continued overseeing the operation of the only Mercury Deposition Network site in Arizona. This site collects weekly mercury wet deposition data. Additionally, the TMDL unit deployed USEPA Region IX's Tekran atmospheric mercury concentration sampler at three sites over approximately three months in early 2007. Modeling efforts by ADEQ's Air Division using the Tekran data have not produced local dry deposition rates as we had hoped. The TMDL unit continues to work with the AQD to determine the best approach to determining this key piece of information.

TMDL Effectiveness and Implementation:— Great Year

Staffing levels for approximately the first two-thirds of FY07 allowed two staff members to devote the majority of their time to these important functions. TMDL Implementation plans (TIP) for Tonto Creek and Alum Gulch were released for public comments in the second half of FY07. Comments received for Tonto Creek resulted in the revision of the waste load and load allocations. The revision shifted the burden of load reduction from the downstream segments to the entire watershed. Originally, the load was calculated cumulatively whereas the revision calculates loads on a segment by segment basis. The revised TMDL and TIP will go out for public comment and the TMDL will be submitted to EPA for approval. The public comment period should begin in September with submittal of the revised TMDL in December. The US Forest Service submitted extensive comments on the Alum Gulch TIP. The main concern was relative to natural background for the watershed and how that determination will impact the conditions of a AZPDES permit for the adit discharge at the World's Fair mine. During effectiveness monitoring efforts, the TMDL Unit will collect more natural background data to confirm the numbers used in the original TMDL.

Remediation efforts have been completed in three of the four target watersheds (Boulder, Turkey, Alum, and Pinto) included in EPA's Performance Measures. The US forest Service performed remedial actions at the Golden Belt and Golden Turkey mines in the Turkey Creek

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watershed and at the World's Fair and Humbolt Canyon mines in Alum Gulch. The Franciscan Friars have completed remedial efforts on the portion of the Gibson mine that drains to Pinto Creek. Sample and Analysis Plans for effectiveness monitoring have been completed and efforts are underway to quantify the improvements in water quality. Effectiveness monitoring activities have also begun at Rainbow Lake where the Arizona Game and Fish Department harvested aquatic vegetation, and interested stakeholders are in the process of implementing best management practices to decrease nitrogen loading to the lake.

Additional Studies - In August, TMDL staff led the surface water sampling investigation of *Vibrio cholerae* (*V. cholerae*) along the upper Gila River, near Bylas. Sampling efforts were coordinated with the Arizona Department of Health Services, San Carlos Apache Tribe, Graham, along with Greenlee and Gila Counties. Concerns arose after two individuals in the local community became infected with non-01 *V. cholerae*. Three separate sampling trips were conducted with *V. cholera* and *Escherichia coli* (*E. coli*) being the target parameters. Swimming advisories were issued for segments of the Gila River that exceeded the *E. coli* standard. Levels of both *V. cholerae* and *E. coli* fell as the summer monsoon season came to an end in October. No source of *V. cholerae* was identified.

The TDML lakes team has supported the National Lakes Survey sampling since May. Arizona was tasked with sampling 21 lakes through the state to support USEPA's efforts to assess the health of the nation's lakes. In addition to the actual sampling, staff members have attended planning meetings and methods training.

TMDL staff has also been actively supporting the collection of fish tissue throughout the state. We have partnered with the AZGFD, US Fish and Wildlife Service, US Forest Service, and the ADEQ.

Regional Water Quality Management Planning: - Very Good Year

Fiscal Year 2007 was another challenging year for the 208 program in dealing with unprecedented growth in Arizona. In the past year, the 208 Program has processed 11 amendments in coordination with the local Designated Planning Agencies, and 118 consistency reviews were completed.

Much staff time was devoted to several contentious amendments. One of the advancements that the 208 Program has made is to simplify the application process with revised forms and a more coordinated approach with permits for processing applications.

Groundwater Monitoring: - Average Year

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Field staff is limited to one employee. Despite this, the groundwater program achieved the following in FY07:

- Over 70 wells/springs in Arizona were sampled with results provided to well owners
- Sampling for the Agua Fria Basin characterization was initiated and completed
- Sampling for the Hassayampa Basin characterization was initiated

Final groundwater reports were published for the Hualapai Valley Basin and the Big Sandy Basin.

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Stormwater Phase II MS4s: – Good Year

ADEQ continues the task of review and approval of the Phase II Storm Water Management Plans (SWMPs) for the small MS4s. In FY 2007, 17 SWMP reviews were completed (total of 39 of 40 SWMP). Most of these reviews required additional correspondence resulting in amendment of the SWMPs to add specificity or more fully conform to the general permit. Of all reviewed SWMPs for the small MS4s, 25 have received final approval and 14 are awaiting submittal of required information. One SWMP remains to be reviewed.

Water Quality Assessment: - Average Year

ADEQ is behind schedule in issuing the 2006 Integrated Report. ADEQ published the draft 2006 *Status of Ambient Surface Water Quality in Arizona – 2004, Arizona’s Integrated §305(b) and §303(d) Listing Report* in February 2007. ADEQ staff drafted responses to public comments on the draft Integrated Report and the responsiveness summary is currently undergoing final management review prior to publication of the final 303(d) list in the Arizona Administrative Register. Tetra Tech and ADEQ staff completed work on Phase II of the Assessment Calculator tool in June 2007. This calculator tool was used successfully by assessment coordinators to compile data for the draft 2008 water quality assessment. However, ADEQ is behind schedule on the 2008 assessment because of the delay in completing the 2006 assessment and the transfer of ADEQ’s most experienced assessment coordinator to another position within the agency. One of the two assessment coordinator positions is now vacant.

CWA 401 Certification of CWA 404 Permits, NEPA Document Review & Other Individual Certifications: - Good Year

This year ADEQ completed individual certification of 48 permits issued under Section 404, and issued 16 modifications to existing certifications. Also, 4 certifications or waivers for nationwide 404 permits (NWP) were processed. The Corps of Engineers renewed their NWPs in FY07 and ADEQ provided certification for those NWPs. In addition, 6 NEPA reviews were conducted.

Border Strategy – Very Good Year:

The Office of Border Environmental Protection has been active with the binational counterparts in executing the Water Quality Division’s border strategy. Accomplishments include: (1) providing assistance to the Nogales (Sonora) wastewater utility in the collection of industrial outfall samples from maquiladoras, and updating a database framework for analyzing results; (2) reviewing Sonoran state and Mexican Federal Law related to wastewater discharges, and providing input to the municipality of Nogales, Sonora for development and improvement of

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local pretreatment laws; (3) coordination of quarterly meetings between state and municipal entities in Nogales, AZ in formalizing response actions for dealing with raw sewage in Nogales Wash; (4) support for Nogales Wash stakeholders through the development of an internet-accessible database to capture water quality data collected by US-IBWC associated with Nogales Wash sampling; data is analyzed and reports summarizing water quality trends are generated biannually through the Office of Border Environmental Protection; (5) support for EPA Border 2012 stakeholders to include review and translation of proposals, coordination of stakeholders in developing work plans for funded projects, development of sampling analysis plans in support of funded projects; securing donations from municipalities and NGOs for unfunded projects, and providing technical support for all projects; (6) support for the Friends of the Santa Cruz River Watch Monitoring Program through the development and implementation of a new sampling analysis plan for monitoring of the Santa Cruz River and Nogales Wash for the purpose of improving future 305(b) assessments; (7) characterization of groundwater contamination associated with Nogales Wash through active monitoring, historical data reviews, and summary reports submitted to compliance units; (8) finalized bidding and began construction of the \$60 million Nogales Wastewater Treatment Plant; (9) responded to three uncontrolled transboundary wastewater discharges from Mexico in Nogales and Naco; (10) provided engineering technical assistance for two projects in Nogales Mexico that directly effect the uncontrolled release of wastewater into Arizona.

PLANNING SECTION – Very Good Year

The Water Quality Planning Section had a busy year, managing all state and federal funds including support for new state legislative initiatives which resulted in increased state support for water programs. Planning will continue to provide budget and administrative support as the Department plans for addition of these new resources in FY 08.

The section submitted 11 grant applications/amendments for grant funding. FY 07 was the second year of the Performance Partnership Grant, and our communication with Region 9 staff assisted us in making critical decisions to assure effective use of grant funds. We also applied for a new 106 Water Quality Monitoring grant. Midyear meetings and negotiations were helpful in providing a forum for joint decisions on program issues. We continue to value the efforts of all the EPA project officers and managers for participating in these coordination meetings. We especially appreciated our consultation with Laura Bose, Jill Korte, Ephraim Leon-Guerrero, and Jared Vollmer, who worked with us to resolve grant issues. They were also very helpful in tracking decision making and organization for the State/EPA meetings.

Water Quality Improvement Grant Program: - The Water Quality Improvement Grant Program

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received 17 grant applications for FY07, Grant Cycle 9. Out of the 17 applications received, ADEQ awarded 8 projects. Awards for Cycle 9 grants totaled \$1,208,431. In addition, the Program awarded funds for educational, outreach, and professional services. The Program continues to provide project management, technical assistance, and fiscal accounting to a significant number of ongoing projects.

EPA's Assistant Administrator for Water announced 16 organizations are finalists eligible to apply for a total of \$13.36 million through EPA's Targeted Watersheds Grants Program. The selected organizations will implement a variety of activities to improve the health of their watersheds. ADEQ is happy to announce that The Sonoran Institute will receive \$858,612 in funding for the Santa Cruz River. ADEQ provided review and assistance of this proposal as well as helped to coordinate the grant package through the Governor's Office.

The Program continues to foster ADEQ's nonpoint source pollution goals by conducting education/outreach efforts to increase public awareness of pollution impacts to surface and groundwater. The Program completed the comprehensive Nonpoint Source Pollution Annual Report, compiled and submitted completed grant reports to EPA, and met the mandated deadline for entering GRTS data into the federal database.

The Program worked effectively with partners, including but not limited to, the Master Watershed Steward Program, Nonpoint Source Education for Municipal Officials (NEMO), Natural Resource Conservation Service, and numerous statewide watershed partnerships. Through these partnerships increasing numbers of Arizona's citizens have been educated in becoming an environmental steward. In addition, these partnerships have been instrumental in identifying water quality problems and learning how to mitigate these problems. An important example of citizen involvement is the NEMO partnership. This partnership and program has developed watershed-based plans that are utilized by the State, watershed partnerships and potential grantees.

In addition to the above work performed, the Program has revised the Water Quality Improvement Grant Manual, developed a new brochure, and created a workbook that will be used for future grant cycles. The material was created with the intention of engaging more citizens in applying for grant funds, the submittal of high quality projects with quantifiable results, and improved agency involvement in the grant process.